REMARKS

The above-captioned application is a 35 U.S.C. § 371 National Phase application of International Application Number PCT/US99/22269, which claims priority from European Application No. 99400394.5, filed February 18, 1999 and European Application No. 98402374.7, filed September 25, 1998.

Applicants thank Examiner Ewoldt for granting a telephone interview on April 14, 2003 to discuss certain claim amendments.

After entry of this amendment, claims 10, 11, 14, 15 and 16-23 will be pending in this application. Claims 1-9 and 12-13 were withdrawn from consideration by the Examiner and have been canceled by applicants. Claims 10, 11 and 15 are allowed. Claim 14 stands rejected. Claims 11 and 14 have been amended. Claims 16-23 have been added.

Enclosed with this amendment and response is a marked-up version showing changes made to the claims by the present amendment; deletions are shown in brackets, while additions are underlined. The enclosed page is captioned "Version With Markings To Show Changes Made".

Information Disclosure Statement

The Examiner stated that references AQ, AS and AU on Form PTO-1449 that was filed on October 5, 2001 (mailed October 2, 2001) have not been considered because they were not received by the Office. Applicants' records indicate that five references, including the above three missing references, and a return receipt postcard were mailed to the USPTO on October 2, 2001. The return receipt postcard was stamped by OIPE and returned to applicants, acknowledging receipt of the references. Nevertheless, applicants have enclosed the three missing references with this amendment and response and request that they be considered by the Examiner.

Rejections under 35 U.S.C. § 102

Claim 14 stands rejected under 35 U.S.C. § 102(b) as being anticipated by Martin *et al.*, sequence submitted by the Human Genome Center, Lawrence Berkeley National Laboratory, Berkeley, CA (1997) ("Martin"). Specifically, the Examiner stated that Martin teaches a fragment of SEQ ID NO: 3.

Martin refers to a 3,311 bp sequence of human chromosome 5q. It is the Examiner's belief that the Martin sequence has a 25 bp sequence that is identical to a 25 bp sequence of SEQ ID NO: 3.

Claim 14 has now been amended to recite a nucleic acid sequence shown in SEQ ID NO: 3 or a fragment thereof, wherein said fragment comprises a contiguous segment of at least 29 nucleotides. Support for the amendment to claim 14 can be found in applicants' published PCT application from page 28, line 30 to page 29, line 2, and elsewhere in the application. Therefore, no new matter has been added by the amendment to claim 14.

Martin does not disclose a fragment of a nucleic acid sequence of SEQ ID NO: 3 that is 29 nucleotides in length or greater. Therefore, applicants submit that claim 14, as amended, is novel in light of Martin. Accordingly, withdrawal of the rejection of claim 14 under 35 U.S.C. § 102(b) in view of Martin is respectfully requested.

Claim 14 stands rejected under 35 U.S.C. § 102(e)(2) as being anticipated by United States Patent No. 5,861,244 ("Wang"). Specifically, the Examiner stated that SEQ ID NO: 14 of Wang teaches a fragment of SEQ ID NO: 3.

Wang refers to a method for assaying genetic sequences. Wang discloses a number of nucleic acid sequences, including those for c-myc, n-myc, dystrophin, HER-2, γ-crystallin, and Esterase D. SEQ ID NO: 14 of Wang discloses a 27 bp fragment derived from n-myc.

Wang does not disclose a fragment of a nucleic acid sequence of SEQ ID NO: 3 that is 29 nucleotides in length or greater. Therefore, applicants submit that claim 14, as amended, is novel in light of Wang. Accordingly, withdrawal of the rejection of claim 14 under 35 U.S.C. § 102(e)(2) in view of Wang is respectfully requested.

New Claims 16-23

New claims 16-18 and 20-22, directed to an expression vector, host cell and process for producing a polypeptide, are fully supported by applicants' application. For example, see applicants' published PCT application from page 26, line 15 to page 38, line 34 and elsewhere in the application. Therefore no new matter has been added by the addition of claims 16-18 and 20-22.

New claim 19, directed to an isolated or recombinant nucleic acid encoding an antigenic polypeptide of at least 8 contiguous residues of the amino acid sequence of SEQ ID NO: 2, is fully supported by applicants' application. For example, see applicants' published PCT application from page 6, line 31 to page 10, line 37; page 11, line 1 to page 12, line 5; from page 28, line 30 to page 29, line 2; and elsewhere in the application. Therefore, no new matter has been added by the addition of claim 19.

New claim 23, directed to an isolated or recombinant polypeptide comprising an antigenic fragment of at least 8 contiguous residues of the amino acid sequence of SEQ ID NO: 2, is fully supported by applicants' application. For example, see applicants' published PCT application from page 5, line 3 to page 6, line 29; from page 10, line 38 to page 26, line 14 and elsewhere in the application. Therefore no new matter has been added by the addition of claim 23.

Applicants believe unity of invention is maintained with the addition of claims 16-23. As stated in 37 C.F.R. § 1.475(a) and (b),

(a) An international and a national stage application shall relate to one invention only or to a group of inventions so linked as to form a single general inventive concept ("requirement of unity of invention"). Where a group of inventions is claimed in an application, the requirement of unity of invention shall be fulfilled only when there is a technical relationship among those inventions involving one or more of the same or corresponding special technical features. The expression "special technical features" shall mean those technical features that define a contribution which each of the claimed inventions, considered as a whole, makes over the prior art.

(b) An international or a national stage application containing claims to different categories of invention will be considered to have unity of invention if the claims are drawn only to one of the following combinations of categories:

(1) A product and a process specially adapted for the manufacture of said product; ....

Applicants believe that their application, with the addition of claims 16-23, still relates to one invention. At the very least, applicants believe that their application, with the addition of claims 16-23, relates to a group of inventions so linked as to form a single general inventive concept. Claims 16-18 depend, directly or indirectly, from claim 10, which relates to SEQ ID NO: 2. Claim 19 relates to SEQ ID NO: 2. Claims 20-22 depend, directly or indirectly, from claim 19, which relates to SEQ ID NO: 2. Although claims 18 and 22 are process claims, they are directed to a process for producing a polypeptide having the sequence defined by SEQ ID NO: 2. Claim 23 also relates to SEQ ID NO: 2. Accordingly, applicants believe that unity of invention is still maintained by the addition of claims 16-23 because all of the new claims relate to SEQ ID NO: 2.

Amended Claim 11

At Examiner Ewoldt's request, applicants have amended claim 11 to add the term "amino acid" between "the" and "coding".

CONCLUSION

Applicants submit that the cited references do not disclose or suggest the subject matter of claim 14, as amended. Accordingly, reconsideration of the rejections and allowance of claim 14 at an early date are earnestly solicited.

If the undersigned can be of assistance to the Examiner in addressing issues to advance the application to allowance, please contact the undersigned at the number set forth below.

Respectfully submitted,

Michael Biro

Michael G. Biro
Reg. No. 46,556

Schering-Plough Corporation
Patent Department
Mail Stop K-6-1, 1990
2000 Galloping Hill Road
Kenilworth, NJ 07033-0530

Phone: (908) 298-5098
Fax: (908) 298-5388

Version With Markings To Show Changes Made

Claims 1-9 and 12-13 have been canceled.

New claims 16-23 have been added.

Claims 11 and 14 have been amended as indicated:

11. (Amended) The nucleic acid sequence of claim 10 comprising the amino acid coding region shown in SEQ ID NO: 1.

14. (Amended) A nucleic acid sequence shown in SEQ ID NO: 3 or a fragment thereof, wherein said fragment comprises a contiguous segment of at least 29 nucleotides.